NEW HAMPSHIRE DEPARTMENT OF AGRICULTURE
Marketing Research & Recommendations
Summer 2003
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Introduction

This project was initiated and managed by the New Hampshire Department of Agriculture, Markets & Food under the direction of the Division of Agricultural Development. Funding for this initiative was provided by the United States Department of Agriculture as part of a grant awarded to New Hampshire's Department of Agriculture. The findings and recommendations that follow are the result of a year-long effort that involved research studies by the Institute for New Hampshire Studies and the University of New Hampshire, the development of an economic impact model, and the preparation of a strategic marketing plan. The purpose of this initiative was to:

1. Develop an economic model to assess the economic impact of agriculture on the New Hampshire economy and establish a benchmark for ongoing measurement.

2. Determine the purchase patterns of people buying agricultural goods and services, and gauge their perceptions and attitudes about the value of agriculture in terms of product value, cultural value, and aesthetic value.

3. Identify opportunities for growing agriculture's value to New Hampshire's economy and quality of life.

4. Develop a strategic plan for pursuing those opportunities.

Research Summaries

There were three major research studies conducted in conjunction with this project. Two studies were conducted by the Institute for New Hampshire Studies (INHS) and the other was conducted by the University of New Hampshire Cooperative Extension (UNH). A summary of each study follows:

INHS SURVEY SUMMARY

Methodology
INHS conducted in-person interviews with 400 resident visitors (those traveling more than 25 miles from home) and 400 out of state visitors. The interviews were conducted during the summer and fall of 2002 at New Hampshire Visitor's Centers and Rest Areas and the Lakes Region Outlet Stores. Most of those interviewed were 25-100 miles from home.

Purpose
The purpose of the research was to determine the role agriculture plays in tourism and the purchasing habits and attitudes of visitors.

Key Findings
Open space was considered very important to the enjoyment of a New Hampshire visit, scoring 4.5 on a 5-point scale. Because farmland and orchards are inherently part of the scenic beauty of New Hampshire, they are vital to the visual enjoyment visitors seek. And research conducted by the Division of Travel and Tourism Development (DTTD) supports this by revealing that scenic drives are one of the leading activities among visitors ***(Nichols/Gilstrap Image Study 2003).***

Over 30% of those surveyed had either bought, or were intending to buy, a local agricultural product on their trip. 30% of the out of state visitors were "not sure" which suggests that they didn't know if they would encounter any of those goods while visiting. Over 60% of out-of-state visitors not planning a purchase cited lack of awareness as the reason for not making a purchase. They either did not know where to find local products or they were not aware of the origin of products they saw.

Those interviewed said they would increase purchases if products were more available and more clearly labeled. They also said that awareness of where there were markets, stands, and U-pick facilities would increase their purchases. 65% of in-state visitors and nearly 50% of out-of-state visitors said they would be willing to spend more for locally grown products. Even with a higher price, locally grown products are considered a better value because of their freshness. The most popular agritourism activities were apple/berry picking and sleigh/hay rides.

UNH SURVEY SUMMARY

Methodology
The UNH survey was implemented in the fall of 2002 and completed in February, 2003.The research team conducted telephone interviews with 435 residents. The respondents were from all parts of New Hampshire with most residing in Rockingham and Hillsborough counties.

Purpose
The purpose of the study was to assess attitudes and purchase behavior of residents who make "routine" purchases at farm stands, farmer's markets, and self-harvesting locations (as opposed to purchases made while traveling).

Key Findings
Over 90% of those surveyed felt that keeping farms viable was important and virtually all respondents (98%) agreed that buying local produce was a way to keep farms viable. 90% of respondents also felt that laws should try to protect farmland from urban development and 82% agreed with the idea that a portion of their property tax should be used to preserve open space in their town. 39% of those surveyed said they "definitely" would purchase a New Hampshire-grown product if identified as such and 56% said they probably" would. Like those surveyed by INHS, 62% of respondents said they would be willing to pay more for food products labeled as New Hampshire-grown. This means that even with "routine" purchases consumers are willing to pay a premium. Nearly all of those surveyed (94%) felt people should have more locally grown foods available to them. The reasons cited for not buying were "out of the way/inconvenient" and "don't know any" which mirrors the INHS research findings. The most popular agritourism activities among those surveyed were apple and berry picking - again mirroring the INHS study.

ECONOMIC IMPACT STUDY

Methodology
The economic impact study was based on data from the U.S.D.A., the Bureau of Economic Analysis, and the New Hampshire Department of Agriculture. This data was used in the development of an economic impact model used to determine the direct, indirect, and induced spending related to the various sectors of the industry (see full report for details).

Purpose
The purpose of the study was to: Provide an assessment of the overall economic impact and economic value of the agricultural industry. Better understand the relationship between agriculture and tourism. Provide a benchmark for gauging agriculture's economic impact over time.

Key Findings
Agriculture produced $930 million in direct spending-representing over 2% of the state GDP. Direct spending supported 11,606 jobs and generated household income of over $200 million. Direct spending produced $43.8 million in state and local government revenues. Agriculture's total economic impact was over $2.3 billion (including direct, indirect, and induced spending). A total of 18,326 jobs are linked to agriculture - resulting in nearly $600 million in household income. The total of all spending produced $118 million in state and local government tax revenue.

RESEARCH CONCLUSIONS

Agriculture has a significant impact on New Hampshire's economy, employment base, and tax revenue. Agriculture is important to our residents and visitors for its contribution to open space, local culture, fresh food, and authentic experiences. There is pent-up demand for locally grown products and a willingness to pay a premium for them. The biggest obstacle to increasing direct-to-consumer purchases is awareness of, and access to, products and activities.

Overall Strategy

In order to increase the economic impact of agriculture, leverage its importance to New Hampshire's quality of life, and ensure its sustainability, there is a critical need to increase the exposure people have to it. The more direct experience people have with New Hampshire agriculture and its products, the more they will buy, the more they will appreciate the importance of agriculture, and the more they will work to protect agricultural assets. The overarching strategy therefore is:

Encounters with agriculture
There are five primary channels where these encounters and experiences can take place:
Farmer's Markets
Farm Stands
Agricultural Fairs & Expositions
Self-harvesting (U-pick)
Agritourism

In each case, the consumer has an opportunity to buy products and have direct contact with the people and places that represent New Hampshire agriculture.

Rationale

These encounters/experiences are universally applicable rather than focusing on a particular product category. This strategy allows agriculture to be connected with tourism- one of New Hampshire's largest and most stable industries and the source of established promotional activities. These encounters represent the potential of additional revenue streams for the industry. Direct experiences are an untapped opportunity given the pent-up demand for products and experiences and the limited awareness of where to find them. Consumers are less price-sensitive in these encounters and more willing to pay a premium for New Hampshire-grown goods. Positive experiences create greater awareness and support. Direct experiences pave the way for future purchases (Vermont studies have shown that people who make purchases while traveling are four times more likely to buy those products in the future). Open space, farmland, and farm products are already an important part of tourism, and agriculture enjoys a strong connection to what visitors are seeking in New Hampshire. The economy is becoming experience-based and people are looking for products and activities that involve

more than just an exchange of goods. Promotion of these encounters is financially feasible (in contrast to national or regional ad campaigns).

Note: This plan is focused on marketing and promotional strategies and has therefore not addressed other needs such as development and training. While marketing and promotional strategies can be implemented immediately, that does not diminish the need to consider the longer-term needs of development and training.

Marketing Strategy

INTRODUCTION
The agricultural industry is in the advantageous position of having both pent-up demand and the ability to charge premium prices. The marketing challenge is not to stimulate interest or promote value, but to increase awareness and access. People are willing to purchase goods and services but need to have more knowledge of where to make those purchases and what products are locally grown. As a consequence, the marketing strategy should be focused on increasing awareness of the different channels (farm stands, farmer's markets, U-pick, fairs, etc.) and providing information on where to find them.

PHASE ONE STRATEGY
Rather than trying to develop a stand-alone marketing program, the proposed strategy leverages the resources of other organizations and state agencies. Those resources represent established avenues for reaching agriculture's key audiences. This strategy would consist of some combination of the following: A partnership with the New Hampshire Division of Travel and Tourism Development (DTTD) to create a higher profile for agriculture in the Official Guidebook, visitnh.com website, the Events Guide and Official Visitors Guide. These publications reach a large audience of residents and visitors at a much lower cost than could be accomplished with a stand-alone program. Inclusion in the DTTD e-newsletter. This email is sent to a mailing list of roughly 40,000 (as of this date) opt-in names. It is sent quarterly, coinciding with each major season. Recipients are able to link directly to visitnh.gov and advertiser sites from the email. This would be an effective way for agriculture to promote seasonal products and activities. Have a presence at selected events and trade shows such as the DTTD New York press event, the Governor's Conference on Tourism, FAM tours for press, etc. This would give agriculture more exposure among key industry and trade audiences.

Work with the New Hampshire Lodging and Restaurant Association (NHLRA) to get locally grown foods featured in restaurants and increase awareness of agricultural activities within the lodging industry. Work with the New Hampshire Department of Transportation (DOT) to develop a signage plan for agricultural destinations. The research conducted by UNH, and secondary research obtained as part of this project, clearly indicates the vital importance of signage in generating spontaneous visits. Continue working with New Hampshire Stories to further the "New Hampshire's Own" marketing and labeling program. The "New Hampshire's Own" program helps to create higher awareness of locally-produced goods and establishes a collective identity for those products. Work with the New Hampshire Liquor Commission to establish a presence in their stores and their magazine and develop a joint promotion to connect food and wine. Work with the Granite State Ambassadors (GSA) to educate the ambassadors about agricultural destinations and activities so that they can direct visitors to those places. Work with the New Hampshire Association of Broadcasters (NHAB) to develop a PSA campaign aimed at increasing awareness of agriculture and its offerings. Upgrade the website content to: Enhance online directories of farm stands, farmer's markets, and U-pick facilities to include more user-friendly formats, maps, and links; include recipes which showcase New Hampshire-grown ingredients and products; and consider the addition of an e-commerce component either through nhfarms.com or nhmade.com.

Conclusion
The various tactics make use of organizations and resources which are already in place. By approaching the marketing according to this strategy, agriculture can increase awareness and promote encounters in a broad but efficient manner.

PHASE TWO STRATEGY
While Phase One is more focused on broad awareness, Phase Two is designed to increase more specific knowledge of local offerings and build relationships within local and regional communities. Phase Two would consist of some combination of the following:

Work with local and regional destination marketing organizations (DMOs) to include agriculture as part of their promotional efforts. Work with DMOs to include agricultural information and materials in their fulfillment packages. Work with local tourism industry to create vacation packages which include agricultural activities and destinations. Recruit members of the agricultural community to serve as local ambassadors, promote agriculture within their region, and disseminate information. These people would provide information to town offices, chambers of commerce, local libraries, etc. Advertise in local and regional guides with cooperative ads featuring area agricultural activities and destinations. Sponsor and/or host local events. These could be either business events such as chamber meetings, business after hours, rotaries, etc., or local consumer events. This would involve featuring locally grown products and providing information on agricultural destinations and activities within the area. Prepare a professional presentation to be given at local meetings and gatherings to effectively raise the profile of agriculture and generate community support. This presentation could be given by Department of Agriculture staff or the local/regional agriculture ambassador.

Create a marketing development team which would help the local and regional members of the industry with promotion, signage, packaging, etc. This team would make its expertise, and its resources available to help with increasing awareness and access, improving merchandising and customer service, and other marketing issues. All of the strategies above are aimed at increasing awareness of agriculture, giving the local community the information and tools needed to promote agriculture, connect agriculture to the local tourism industry, and increase traffic to local destinations.

Next Steps

1. Determine the ROI of an investment in the proposed strategies.
With economic impact data now in place, the next step is to assess the relative impact of increasing the profile of agriculture and increasing purchases of agricultural goods and services. This determines the return that can be expected from dollars invested in such efforts.

2. Organize and mobilize industry players to establish a coordinated and sustained effort to promote agriculture.
Armed with data outlining the importance of agriculture to New Hampshire's economy and quality of life, the industry needs to work collectively to raise awareness of its impact.

3. Publicize research findings and recommendations.
A coordinated effort needs to be established to "get the word out" about agriculture through a public relations campaign centered on the research outlined above. This will bring attention to the industry and educate opinion leaders about its importance.

4. Present findings and recommendations to legislators and opinion leaders.
Central to the sustainability of agriculture is support from decision makers in the state. The industry needs their financial and political backing and should work to make those decision makers aware of agriculture's influence on the economy, the landscape, and the quality of life in New Hampshire.

5. Create a measurement system to provide ongoing data.
It's vital to have a mechanism for ongoing measurement in order to provide objective data and a framework for making decisions about budgets, policies, and practices.

6. Create a new position within the Department of Agriculture to oversee the implementation of proposed strategies.
Many of the proposed strategies involve planning, relationship building, coordination, and facilitation. In order to make the best use of existing resources, it will be necessary to have a position dedicated to bringing those resources together.

7. Increase promotional funding to support advertising, promotion, and event needs.
The Department of Agriculture's marketing budget is woefully under funded. There should be an increase in marketing funds simply to undertake the most basic elements of a marketing plan. An investment in marketing would make a significant difference and is sure to produce a very attractive ROI over time.

8. Establish a pilot program in a selected local area to test the proposed strategies.
Rather than attempt to implement Phase Two of the marketing strategy statewide, it would be wise to create a pilot program in a selected market in order to test the tactics and gauge the success of the strategy. This would make the strategy more manageable and more measurable.

Conclusion

Agriculture makes a significant contribution to New Hampshire's economy and to its quality of life, with a total economic impact of over $2 billion. At the same time, the industry faces increasing pressure in the face of development. The loss of farmland presents a risk that New Hampshire will lose the open space that attracts tourism, the heritage that appeals to visitors and residents, and the direct access to fresh food that people are willing to pay a premium for. The answer is to leverage the appeal of agriculture by reaching out directly to consumers. Through "Encounters with Agriculture," the industry can increase sales, generate goodwill, and create a groundswell of support. This requires increasing the visibility of agricultural offerings, giving people better access to goods and activities, and raising awareness of where to encounter agriculture. Demand for local agricultural products and activities is high and price sensitivity is low, creating an ideal selling environment. The challenge is to increase access and awareness in order to capitalize on strong demand. To do so, the industry needs to leverage the promotional activities of other organizations and provide for the dissemination of information locally. By creating more opportunities for people to encounter agriculture, the industry will provide even greater economic and social value to New Hampshire.

THE IMPACT OF AGRICULTURE ON NEW HAMPSHIRE'S ECONOMY
In Fiscal Year 2002

Introduction

Defining the agricultural industry is not an easy task, although one would imagine that it ought to be. The most important reason for this is that most people who farm are self-employed, and therefore are not registered with the New Hampshire Department of Employment security, the state government's primary collector of employment and other economic statistics. The U. S. Census Bureau also does not collect detailed information on farming, but instead relies on surveys conducted by the U.S. Department of Agriculture. The U.S. Department of Agriculture provides detailed, but consolidated, information to the New Hampshire Department of Agriculture about farming activities in the state that is far more useful for this analysis than what is published by the U. S. Census Bureau, an important source of information for other industries. Finally, the U. S. Bureau of Economic Analysis is a very important source of information for the following analysis. The primary reason for this is that this agency has access to the U. S. Internal Revenue Service's Schedule C

(self-employment) data base, and thus can calculate the total number of people employed and their earnings for both self-employed and employed workers for all of the various industries. Therefore, the two most important sources of information used in the following analysis are from the New Hampshire Department of Agriculture and the U. S. Bureau of Economic Analysis. Most of the information available from these sources is available through December 2001, with some data through December 2002.Thus, some of the following information has been estimated, to produce a report which covers the period of July 2001 to June 2002. The final problem in writing this report is to further define agriculture and agricultural activities. The government's rule to classify business establishments is by the activity which provides the largest source of income to that business. For example, Christmas tree farming is really a forestry activity, unless it is only a minor part of a farm's total sales, in which case it would be included under agriculture. Otherwise, it would appear under forestry. Another example is that a large part of the horticulture business is the installation of landscaping materials around new or renovated buildings. Such a horticulture business would be classified under construction, rather than under agriculture.

AGRICULTURE & ECONOMIC IMPACT

The New Hampshire Department of Agriculture has recently reported $565 million in agricultural sales, including $380 million in horticultural products. In addition, it noted that there were an additional $125 million in dairy and specialty food products manufacturing in the state. Since the release of this information by the state Department of Agriculture, the New England Nursery Association, Inc. has reported that horticultural sales for New Hampshire has increased from $380 million in 2001 to $438 million in 2002.This revision would increase total agricultural sales to $623 million, using the state Department of Agriculture's approach to measuring this industry, plus the $125 million in sales of food products manufacturers. In the following analysis, this researcher has made some revisions to these data, to both bring them up to estimated levels for the fiscal year 2002 period and to avoid double counting. As a result, the agricultural industry sector is defined as having $310 million in sales, including $120 million in horticultural sales. There is an additional $295 in horticultural sales that have been estimated, with $50 million allocated to retail trade and $245 million to construction. This is a total of $605 million, below the level of $623 given above. The difference of $18 million is largely due to sales of horticultural products from farms to retailers and contractors for resale. The following analysis also includes a summary of the multiplier impacts of these $605 million in sales of farm and horticultural products. The multiplier impacts will include within them this $18 million in sales from farms to resale by non-farm horticultural businesses. The multiplier impacts will also include a share of the $125 million in dairy and specialty food products manufacturers listed by the state Department of Agriculture as part of the state's agricultural industry. The share of those manufacturing industries not included in the multiplier impacts are for the share of the milk, fruit and vegetable products that are imported into the state from farms located elsewhere.

The economic model used in the following analysis to measure sales and employment impacts of agriculture and horticulture on the state's economy is an updated 2002 model prepared for the Institute for New Hampshire Studies (INHS) by Laurence Goss, Ph.D. This model is based on data primarily from the U.S. Bureau of Economic Analysis (BEA) and is very similar to its RIMS II model of the state's economy, but with more consolidation of industry sectors. Unlike the INHS model used previously for economic studies for the New Hampshire Department of Resources and Economic Development, agriculture was broken out as a separate sector from the construction, mining and forestry consolidated sector. In addition to measuring the multiplier impacts, this model can also be used to calculate state and local government tax revenues. This model uses the new North American Industrial Classification System (NAICS), which has replaced the Standard Industrial Classification (SIC) system. After reviewing the economic impacts of agricultural production and other horticultural sales, this report will also look at the impacts of agriculture-related tourism. The total sales of farms used in the fiscal year 2002 period was estimated to be $310 million. This included $120 in horticultural sales that were primarily crop production for resale to other businesses. Agricultural, or farm, sales include farmers markets, farm stands, sales to manufacturers and sales to other farmers. On-farm manufactured food products, such as jams and jellies, were also included as sales. This $310 million was equal to 0.7 percent of the estimated Gross State Product for New Hampshire for the fiscal year 2002 period. The U. S. Bureau of Economic Analysis reported that there were 8,559 people engaged in farming on a full or part-time basis, including self-employed people during 2001.This number also included contractors of agricultural services who worked on the farms, including planters and harvesters, but who were not actual employees of the farms. As most work on farms is both seasonal and part-time, the full time equivalent employment for fiscal year 2002.

The Impact of Agricultural Production was estimated to be 4,828 people. This was 0.7 percent of the state's full time equivalent work force. If part-timers both within this industry and the state's total employment are measured, then agricultural production provided 1.1 percent of all part-time and full time jobs. This employment provided an estimated $43 million in wages, salaries and self-employment earnings. This was 0.2 percent of all such earnings for the state, and reflects the part-time and seasonal nature of this work, as well as the relatively low hourly wage rates provided. Out of the $310 million in sales, there were also six million dollars paid in taxes, primarily in the form of property taxes to local government. The economic model was used to calculate the multiplier (both indirect and induced) impact of the $310 million in direct agricultural sales on the rest of the state's economy. Indirect impacts are those impacts on supplier businesses and organizations, plus taxes paid to governments located within the state's borders. Induced impacts are those due to the spending by households to purchase the products of the industry as well as the spending of the wages and other earnings of the employees of that industry. An additional $415 million was added to the state's economy from the original sales of $310 million by the agricultural sector. This resulted in an additional 2,414 full time equivalent jobs and an addition to household income of $70 million. State and local governments received an added $15.6 million in tax receipts. Therefore the total impact of this agricultural sector was $725 million in total transactions, equal to 1.7 percent of Gross State Product. There was total employment of 7,242 full time equivalent jobs, or 1.0 percent of the state's full time equivalent jobs. There were $113 million in total household earned income, which was 0.4 percent of all earned income. Finally, there were $21.6 million in local and state tax receipts. Of this amount, it was estimated that local property taxes equaled $14.5 million and state tax receipts equaled $6.9 million, including rooms and meals taxes of $0.2 million. Thus, the primary source of revenues to state government was due to the multiplier effect.

The Impact of Other Horticultural Sales

There were an additional estimated $295 million in horticultural sales not included in the previous section. The New England Nursery Association, Inc. has contracted with faculty at the Universities of Vermont and Maine to conduct annual surveys of this industry across New England. Its most recent study, for calendar year 2002, stated that horticultural businesses located in New Hampshire had $438 million in sales. The horticultural industry includes farms and greenhouses where crops (including bushes, trees, flowers, and sod) are grown for sale. It also includes businesses which purchase and resell such products (except for florists who sell primarily cut flowers) as well as businesses which install and maintain such products. Many nurseries fall into the category of retail or wholesale trade as they are often reselling products raised at another location. There are also many other horticultural businesses which are in construction, tree services or landscape maintenance. In the following analysis, it was assumed that $50 million was in the form of retail trade or direct sales to households, and the retail sector of the economic model was used to measure the impacts of these sales. The other $245 million in sales was in the form of wholesale trade (usually sales to construction), construction and landscape management services. For the purposes of using the economic model, the construction, forestry and mining consolidated economic sector was used to measure employment, household earnings, taxes and the multiplier impacts of this $245 million. The $295 million in sales was equal to 0.7 percent of Gross State Product for state fiscal year 2002. These $295 million in sales resulted in an estimated 268 full time equivalent jobs in retail trade and 1,871 jobs in construction, for a total of 2,139 jobs. This was equal to 0.3 percent of all full time equivalent jobs. Given that these jobs are highly season in nature, there were probably twice this number of jobs during the summer season. Household earnings were estimated at $7.1 million for retail trade and $46.4 million for construction, for a total of $53.5 million in household earnings. This was 0.2 percent of all earned household income. This low percentage reflects the fact that these jobs are usually seasonal, often part-time and pay relatively low hourly wages. Tax receipts from these two sectors were estimated as $7.25 million, of which $5.9 million was estimated to be for local property taxes and $1.35 million in state taxes.

The multiplier effect of the $295 million in horticultural sales was an additional $457.3 million in indirect and induced transactions, for a total monetary impact of $752.3 million. This was equal to 1.7 percent of the Gross State Product. There was an addition of 1,936 full time equivalent employees, for a total of 4,075 full time equivalent employees, or 0.6 percent of all full time equivalent jobs in the state. Household earned income increased by $122 million, to total earned income of $175.5 million. This was equal to 0.7 percent of all earned income. Finally, there were an additional $19.3 million paid in state and local taxes due to the indirect and induced multiplier effect. Of this amount, $9.1 million was in local property taxes and $10.2 million in state tax receipts, including $0.2 million in rooms and meals taxes. The total taxes paid that resulted from the original $295 in direct spending, plus the indirect and induced effects were $26.55 million, of which $15 million was in local property taxes and $11.55 million in state tax receipts, including $0.2 million in rooms and meals taxes. As was the case for the agricultural sector impacts described above, most state government revenues resulted from the indirect and induced rounds of spending, rather than from the original direct spending. The total direct sales of agriculture and other horticultural products and services were estimated to be $605 million for fiscal year 2002.This was 1.4 percent of Gross State product. The total full time equivalent employment was estimated as 6,967 jobs, or one percent of the state's number of full time equivalent jobs. During the summer, there were probably at least twice this number of people involved in agriculture, including horticulture, or over two percent of summer employment. The total household earned income from this employment was estimated at $ $96.5 million, or 0.4 percent of the state's total household earned income. The direct taxes paid by these businesses to state and local government within New Hampshire included $11.9 million to local government and $1.35 million to state government.

Total Impacts of Agricultural and Other Horticultural Sales

When the indirect and induced impacts are added to the direct impacts outlined in the preceding paragraph, there were $1,477.3 million in total monetary transactions. This was equal to 3.4 percent of Gross State Product. These monetary transactions resulted in 11,317 full time equivalent jobs, which was 1.6 percent of such jobs in the state. Total household earned income was $288.5 million from the direct, indirect and induced impacts, which was 1.1 percent of all household earned income. Finally, the total taxes paid to state and local governments equaled $48.15 million, of which $29.7 million was in local property taxes and $18.45 million was in state tax receipts, including $0.4 million in rooms and meals taxes. Thus, the state government received most of its taxes through the indirect and induced effect. The major sources of state taxes were the business profits and/or business enterprise tax. The following sections describe those aspects of tourism that depend directly or indirectly on the activities of the state's agricultural industry. The sales of agricultural products to tourists have not been included in the sections below, as they have already been incorporated into the calculations of the previous sections. The first section describes the economic impact of the state's eleven agricultural fairs. The state Department of Agriculture plays an active role in these fairs, as do many of the state's farmers. The second section describes what can be defined as true agricultural tourism, which is when tourists visit farms and/or make purchases of farm products and locally processed food products at farmers markets, roadside stands and at retail stores. The third section describes the economic impact of tourists who intentionally drive through agricultural areas to view the scenery, but are not making any purchases of farm products. A fourth section summarizes these tourism impacts that are related to agriculture.

Introduction to Agritourism Agricultural Fairs Impact

During the fall of 2002 the Institute for New Hampshire Studies prepared an economic impact study of the eleven agricultural fairs held in the state during the summer and fall of 2002 for the New Hampshire Association of Fairs and Expositions. The results that follow differ from the report prepared for the association in two ways. First, $530,000 in spending for agricultural products and by farm exhibitors at these fairs were not included in the following analysis as they were already accounted for in previous sections of this report. Second, a new economic model for state fiscal year 2002 was prepared for use in this report, while the report prepared for the Fairs and Expositions association used the fiscal year 2000 model. The report prepared for the Fairs and Expositions association found that visitors to the fairs and the fair exhibitors and operators spent an estimated $40,591,550 at, or near, the fair grounds while these fairs were underway. In the following analysis this has been reduced to an estimated $40.1 million. This spending resulted in household incomes of $13.4 million and 618 full time equivalent jobs, not including the farmers. The direct spending produced $2.4

million in state and local government revenues, including $0.6 million in local property taxes, $1.4 million in rooms and meals taxes and $0.4 million in other state government revenues. The indirect and induced impacts of the $40.1 million in direct spending was an additional $66.4 million in monetary transfers, including $25.0 million in household revenues and $4.0 million in state and local government revenues. An additional 296 full time equivalent jobs were also created. The total impact of the agricultural fairs (not including purchases of farm products and spending by farmers) was $106.4 million in transactions, 914 full time equivalent jobs, $39.4 million in household income and $6.4 million in state and local government receipts. The government receipts include $1.4 million in local property taxes, $1.5 million in rooms and meals taxes, and $3.5 million in other state government taxes, fees, liquor store sales, State Parks receipts and tolls.

Agricultural Tourism Impact

During the summer of 2002 the Institute for New Hampshire Studies prepared an economic impact study of agricultural tourism for the state Department of Agriculture for fiscal year 2002.The results that follow differ from the previous report prepared for the Department of Agriculture in two ways. First, $26 million in spending for agricultural products by tourists and households was not included in the following analysis as they are accounted for in previous sections of this report. Second, a new economic model for state fiscal year 2002 was prepared for use in this report, while the report prepared previously used the fiscal year 2000 model. The previous report prepared for the state Department of Agriculture estimated that agricultural tourists spent an estimated $201 million (including $26 million for farm products) while on an estimated 520,000 trips. The $175 million in direct spending by these agricultural tourists not spent on farm products resulted in 2,556 full time equivalent jobs and household incomes of $59.2 million. This direct spending produced $19.2 million in state and local government revenues, including $3.1 million in local property taxes, $6.4 million in rooms and meals taxes and $9.7 million in other state government revenues. The indirect and induced impacts of the $175 million in direct spending were an additional $290 million in monetary transfers, including $110.5 million in household revenues and $22.4 million in state and local government revenues. An additional 1,287 full time equivalent jobs were also created. The total impact of this agricultural tourism (not including the purchase of farm products) was $466 million in transactions, 3,843 full time equivalent jobs, $169.7 million in household income and $41.6 million in state and local government receipts. Government receipts included $8.9 million in local property taxes, $6.6 million in rooms and meals taxes, and $26.1 million in other state government taxes, fees, liquor store sales, State Park receipts and tolls.

Agricultural Scenery Tourism Impact

One of the most common forms of recreational travel is the scenic drive. The Travel Industry Association of America (TIAA) conducted the most recent visitor surveys of the state's tourists and travelers during 2001 as part of its national panel research. The state Division of Travel and Tourism Development purchased these survey results from TIAA and they are summarized on the INHS website. These survey results showed that about forty percent of all tourists and business travelers in the state were engaged in outdoor recreation, a rate that was twice the national average. When those engaged exclusively in active outdoor recreation were excluded, then about thirty percent of all visitors to the state were engaged in passive outdoor recreation, including scenic drives. If one assumes that twenty percent of all passive outdoor recreation includes scenic drives through agricultural areas in this state, then six percent of all visitors annually engaged in this activity. The seasonal TIAA visitor surveys showed that most passive outdoor recreation occurred during the summer, followed closely by the fall and then the spring. Very few visitors engaged in passive outdoor recreation during the winter. The Institute for New Hampshire Studies (INHS) estimates that there were 26.8 million trips of individual tourists and business travelers during state fiscal year 2002.Thus, there were an estimated 1.6 million trips by individuals where viewing agricultural scenery was an important trip activity. When the 520,000 trips to purchase agricultural products as described in the previous section were excluded, then there were 1.08 million trips by individuals to view agricultural scenery, with no purchase of agricultural products. It has been assumed that a larger share than normal of agricultural scenery trips were only one day long. As a result, it has been assumed that only three percent of all "visitor days" spent in the state included the viewing of agricultural scenery, with no purchase of farm products. This helped to provide for a conservative assumption regarding the economic impact of such trips. The INHS estimates that there were 54 million visitor days in the state during state fiscal year 2002.Three percent of this total was 1.6 million visitor days, which in turn resulted in total estimated direct spending of $109 million, as the typical visitor spent $67.26 per day in the state. The $109 million in direct spending by these agricultural scenery tourists resulted in 1,465 full time equivalent jobs and household incomes of $33.9 million. This direct spending produced $8.9 million in state and local government revenues, including $2.0 million in local property taxes, $3.7 million in rooms and meals taxes and $3.2 million in other state government revenues. The indirect and induced impacts of the $109 million in direct spending was an additional $173.4 million in monetary transfers, including $64.3 million in household revenues and $13.3 million in state and local government revenues. An additional 787 full time equivalent jobs were also created. The total impact of this agricultural scenery tourism was $282.4 million in transactions, 2,252 full time equivalent jobs, $98.2 million in household income and $22.2 million in state and local government receipts. Government receipts included $5.2 million in local property taxes, $3.8 million in rooms and meals taxes, and $13.2 million in other state government taxes, fees, liquor store sales, State Park receipts and tolls. The $324.1 million in direct spending by these agriculture-related tourists was 0.7 percent of Gross State Product and 8.7 percent of all tourist and business traveler estimated spending in New Hampshire during state fiscal year 2002. This spending resulted in 4,639 full time equivalent jobs, which was 0.7 percent of all full time employment in the state. This direct spending resulted in household incomes of $106.5 million. This direct spending also produced $30.5 million in state and local government revenues, including $5.7 million in local property taxes, $11.5 million in rooms and meals taxes and $13.3 million in other state government revenues. The indirect and induced impacts of the $324.1 million in direct spending was an additional $529.8 million in monetary transfers, including $199.8 million in household revenues and $39.7 million in state and local government revenues. An additional 2,370 full time equivalent jobs were also created.

Total Agritourism Impacts

The total impact of this agricultural-related tourism was $853.9 million in transactions, or 2.0 percent of gross state product. A total of 7,009 full time equivalent jobs were created, or 1.0 percent of all of the state's full time equivalent jobs. There was $306.3 million in household income, which was 1.2 percent of the state's household earned income. The total of $70.2 million in state and local government receipts included $15.5 million in local property taxes, $11.9 million in rooms and meals taxes, and $14.7 million in other state government taxes, fees, liquor store sales, State Park receipts and tolls. The $929.1 million in direct spending by agriculture, horticulture and agriculture-related tourists was 2.1 percent of Gross State Product. This spending resulted in 11,606 full time equivalent jobs, which was 1.7 percent of all full time employment in the state. This direct spending resulted in household incomes of $203 million, which was 0.8 percent of the state's household earned income. This direct spending produced $43.8 million in state and local government revenues, including $17.6 million in local property taxes, $11.5 million in rooms and meals taxes and $14.7 million in other state government revenues. The indirect and induced impacts of the $929.1 million in direct spending was an additional $1,186.4 million in monetary transfers, including $391.8 million in household revenues and $74.6 million in state and local government revenues. An additional 6,720 full time equivalent jobs were also created. The total impact of this agriculture, horticulture and agriculture related tourism was $2,321.2 million in transactions, or 5.4 percent of Gross State Product. A total of 18,326 full time equivalent jobs were created, or 2.6 percent of all of the state's full time equivalent jobs. There was a total of $594.8 million in household income, which was 2.3 percent of the state's household earned income. The total of $118.4 million in state and local government receipts included $45.2 million in local property taxes, $12.3 million in rooms and meals taxes, and $60.9 million in other state government taxes, fees, liquor store sales, State Park receipts and tolls.

Summary of All Economic Impacts References

Institute for New Hampshire Studies, Plymouth State College. Agricultural Tourism in New Hampshire. Plymouth, NH. September, 2002. This report estimated the economic impact of tourists who visited farms and purchased agricultural products during the June 2001 to May 2002 period.

Institute for New Hampshire Studies, Plymouth State College. Economic Impact of the 2002 Agricultural Fairs on New Hampshire. Plymouth, NH. December, 2002. This report estimated the impact of visitors to the state's eleven agricultural fairs during the summer and fall of 2002.

New England Nursery Association, Inc. $4 Billion and Growing. South Natick, MA. January, 2003. This publication was prepared by faculty at the Universities of Vermont and Maine and summarizes 2002 horticultural sales for the six New England States.

Porter, John C. *Agriculture is Big Business in New Hampshire.* Laconia Citizen. February 4, 2003, page 1. John Porter's article summarizes agricultural statistics for the state compiled by the New Hampshire Department of Agriculture. Mr. Porter is employed by the UNH Cooperative Extension Service.

http://oz.plymouth.edu/~mokrant. This is the Institute for New Hampshire Studies website and contains a wide range of statistics and reports about tourism in New Hampshire.

www.bea.doc.gov. This is the U.S. Bureau of Economic Analysis website. It contains a wide variety of economic information about the nation, the states, counties and metropolitan areas, including Gross State Product. It also provides access to articles and statistics in the monthly Survey of Current Business.

www.state.nh.us/agric/aghome. This is the home page of the New Hampshire Department of Agriculture. It provides access to agricultural statistics for the state as well as information on agricultural tourism and other subjects.

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NEW HAMPSHIRE'S AGRITOURISM SURVEY OVERVIEW/SUMMARY

Methodology

A questionnaire was developed (copy in Appendix) and administered to a sample of 400 New Hampshire visitors and 400 out-of-state visitors. Interviews were conducted in person at various NH Rest Areas/Visitor Centers and at the Lakes Region Factory Outlet Stores on weekends between July 20 and August 10, 2002.

Report Format

This report presents survey data for two groups of respondents - NH visitors and Out-of-State Visitors. The notation (n=) is used to indicate the number of people responding to each question and the base upon which survey statistics were calculated.

Major Research Findings

1. In terms of relative importance to the enjoyment of their NH visit, visitors rated “open space” relatively high and “pick-your-own facilities” relatively low.

2. Approximately one-third of visitors interviewed indicated that they did/will purchase NH-Grown/Made agricultural products during their current trip. Out-of-state visitors reported a higher incidence of purchasing fresh vegetables and specialty/ processed foods than their NH counterparts. Most visitors reported purchasing such products at farmer’s markets/farm stands.

3. Of those not purchasing NH-Grown/Made agricultural products, two-thirds of the NH visitors cited “no interest/need” as the primary season while over half of the out of state visitors cited not knowing where to purchase them.

4. The likelihood of visitors increasing their level of purchases of NH-Grown/Made agricultural products seems more directly related to wider product availability and “promotion”.

5. Pricing did not seem to be a major issue - in fact, almost two-thirds of NH visitors and almost half of out-of-state visitors indicated a willingness to pay a “premium” for NHGrown/Made agricultural products (typically 10%) for reasons such as “freshness” and “providing a better value”. “Supporting the local economy” was considerably more important to NH visitors than their out-of-state counterparts.

6. In terms of agritourism “experiences”, participation and future interest in activities such as “apple/berry picking” and “sleigh/hay rides” were noticeably higher than “farm stays/tours” or “cider making”. New Hampshire visitors reported a level of participation twice as high and levels of future interest noticeably higher than their out of state counterparts.

DEMOGRAPHICS OF SURVEY RESPONDENTS

Annual Household Income

As indicated in Table 1, out-of-state visitors reported higher annual household incomes than NH visitors with almost half reporting 75,000 or greater.

Table 1
Distribution of Survey Respondents by Annual Household Income

	NH Out-of-State Residents	Residents Income Group (n= 401) (n=387)
Less than $20,000	2.7%	1.8%
$20,000-$34,999	7.2	7.2
$35,000-$49,999	21.7	21.2
$50,000-$74,999	35.0	23.3
$75,000-$99,999	25.0	27.4
$100,000-$149,999	7.7	16.0
$150,000 or more	.7	3.1
	100.0%	100.0%

Age

Out-of-state visitors were reportedly also older than their NH counterparts. Table 2 summarizes the responses which indicate that about half were age 50 or older.

Table 2
Distribution of Survey Respondents by Age Group

	NH Out-of-State Residents	Residents Age Group (n= 413) (n=393)
18-24	7.0%	3.8%
25-34	18.2	12.5
35-49	37.0	32.5
50-64	23.7	25.2
65 or more	14.1	26.0
	100.0%	100.0%

Gender

Table 3 presents the distribution of sample respondents by gender. As can be seen, while the ratio is 60/40 for females in the NH visitor sample, it is almost the reverse for the out-of-state visitor sample.

Table 3

Distribution of Sample Respondents by Gender

	NH Out-of-State Residents	Residents (n= 410) (n=399)
Male	40.2%	53.4%
Female	59.8	46.6
	100.0%	100.0%

TRAVEL PARTY INFORMATION

Respondents were asked a few initial questions to obtain a travel party "profile".

Distance from Primary Residence

As indicated in Table 4, NH visitors reportedly had traveled an average of 55 miles from their primary residence while out-of-state visitors reportedly had traveled an average of 360 miles.

Table 4
Miles from Primary Residence

	NH Out-of-State Residents	Residents Miles (n=386) (n=288)
25 or less	16.0%	3.4%
26-50	42.0	11.1
51-100	35.0	26.8
101-200	6.5	27.5
201-500	.5	12.8
501-1000		- 8.7
Over 1000		- 9.7
	100.0%	100.0%

Mean # miles 55 360

Travel Party Size

As indicated in Table 5, the average travel party size was slightly larger for out-of-state visitors (3.0) than for NH visitors (2.7).

Table 5
Mean Travel Party Size

	NH Out-of-State Residents	Residents (n=418) (n=405)
Adults	2.0	2.4
Children		.7 .6
Total	2.7	3.0

NH Travel Patterns

Out-of-state visitors reported spending an average of 3.8 days in New Hampshire on their current trip and making an average of 3.4 trips to New Hampshire each year. In-state visitors reported making an average of 17 trips within New Hampshire each year for vacation or pleasure.

NEW HAMPSHIRE AGRICULTURE

The next series of questions were designed to gauge the relative importance of agriculture-related factors to visitors' enjoyment of New Hampshire, document the incidence of purchasing agriculture products while visiting the state as well as the factors that might be likely to increase future purchases.

NH Enjoyment Factors

Respondents were first asked about the relative importance of various agritourism factors to the enjoyment of their New Hampshire visit. Table 6 summarizes the responses which indicate that "open space" was rated of highest relative importance and "pick-your-own facilities" of lowest relative importance.

Table 6
Importance of Agriculture-Related Factors in Enjoyment of NH Visit (Scale: 1 to 5, where 5 = Very Important)

	NH Out-of-State Residents	Residents Factor (n=418) (n=402)
Open space	4.6	4.5
Farms, orchards, etc.	4.3	3.6
Farmer's markets, farm stands, etc.	4.2	3.9
Pick-Your-Own facilities	3.7	3.0

Incidence of Purchasing NH-Grown/Made Products

Visitors were asked whether they did/will purchase New Hampshire-grown/made agricultural products (fruits/vegetables, specialty/processed foods, flowers/plants, trees/shrubs) while on their current trip. Table 7 summarizes the responses which indicate that approximately one-third of all visitors responded "Yes". A similar percentage of out-of-state visitors responded "not sure" which undoubtedly reflects that they were interviewed early during their visit to New Hampshire.

Table 7
Incidence of Purchasing NH-Grown/Made Agricultural Products on Current Trip

	NH Out-of-State Visitors	Visitors (n=418) (n=402)
Yes	32.5%	35.3%
No	58.9	31.6
Not sure	8.6	33.1
	100.0%	100.0%

Reasons for Non-Purchase

Visitors responding "No" or "Not Sure" to the question on purchasing NH-Grown/Made agricultural products were asked about their reasons. As indicated in Table 8, while two-thirds of NH visitors reported "no need/interest", over half of the out-of-state visitors reported they were not aware of the origin of products. Another 15-20% of visitors reported not knowing where to purchase such products.

Table 8
Reason for Non-Purchase

	NH Out-of-State Residents	Residents Reason(n=255) (n=204)
No interest/need	69.0%	39.2%
Not aware of origin of products	16.5	53.9
Don't know where to purchase	21.5	14.9
Other	10.2	3.9

Note: percentages add to more than 100% due to multiple mentions

Purchase of Specific Types of Agricultural Products

Those who indicated they purchased or intended to purchase NH-Grown/Made agricultural products were then asked to specify which types. Again, multiple responses were allowed and as indicated in Table 9, out-of-state visitors reported higher incidences of purchasing fresh vegetables and specialty/processed foods than their in-state counterparts.

Table 9
Incidence of Visitors Purchasing Specific Types of NH-Grown/Made Products

	NH Out-of-State Residents	Residents Product type (n=135) (n=142)
Fresh vegetables	68.1%	76.8%
Fresh fruits	71.1	68.3
Specialty/processed foods	35.6	52.1
Flowers/plants/shrubs	17.0	12.7
Other	3.7	7.7

Note: percentages add to more than 100% due to multiple mentions

Mean Expenditures for Agricultural Products

These same group of purchasers were next asked approximately how much they spent on various types of NH-Grown/Made products on their current trip. Average expenditures have been calculated and are presented in Table 10 for the small group of respondents providing complete information. It is noticeable that out-of-state visitors reportedly spent considerably more on agricultural-related products.

Table 10
Mean Expenditures for Those Purchasing Agricultural Products

Product Type (n=)	NH Out-of-State Residents (n=)	Residents
Fresh fruits/vegetables	$18.88 (107)	$30.70 (107)
Flowers/plants/shrubs	7.54 (21)	7.12 (15)
Specialty/processed foods	7.09 (36)	50.19 (78)
Total Spending	$33.51	$88.01

Types of Retail Establishments

A related question for those making purchases of agricultural-related products asked about the relative use of different types of retail establishments. As can be seen in Table 11, most people reported purchasing at farmer's markets or farm stands.

Table 11
Use of Various Retail Establishments

	NH Out-of-State Residents	Residents
Fresh fruits/vegetables: (n=107)	(n=107)	
Grocery/convenience stores	19.6%	23.8%
Farmer's Markets/Farm stands	76.2	70.0
Pick-Your-Own facilities	3.2	5.5
Other	1.0	.7
	100.0%	100.0%
Specialty/Processed Foods: (n=36)	(n=78)	
Grocery/convenience stores	24.5%	37.8%
Farmer's Markets/Farm stands	45.4	49.7
Pick-Your-Own facilities	3.7	.5
Other	26.4	12.0
	100.0%	100.0%
Flowers/Plants/Shrubs: (n=21)	(n=15)	
Grocery/convenience stores	7.1%	7.7%
Farmer's Markets/Farm stands	64.3	39.0
Pick-Your-Own facilities	4.8	---
Other	23.8	53.3
	100.0%	100.0%

Likelihood of Increased Future Purchases

All respondents were asked to indicate the relative likelihood that they might increase purchases of NH-Grown/Made agricultural products if certain conditions/factors existed. Responses are summarized in Table 12 and indicate that increased future purchases were somewhat more likely to be a function of wider product availability and "promotion".

Table 12
Likelihood of Increasing Future Purchases of NH-Grown/Made Agricultural Products if Certain Conditions Applied
(Scale: 1 to 5, where 5 = Very Likely)

Condition (n=417)	NH Out-of-State Visitors (n=400)	Visitors
Products were available in more locations	4.3	4.1
Increased awareness of existence/location of Farmer's Markets, Farm Stands, Pick-Your-Own Facilities, Nurseries, etc.	4.2	4.0
Products were more clearly labeled, providing easier recognition of NHGrown/Made products	4.1	3.8
Prices were more competitive with other products	4.1	3.7

Willingness to Pay Extra

All respondents were also asked if they'd be willing to pay extra for NH-Grown/Made agricultural products and, if so, how much of a "premium" they would be willing to pay. Table 13 summarizes the responses which indicate that a substantial percentage (65% of NH

visitors and 46% of out-of-state visitors) reported a willingness to pay extra. In both cases, the average "premium" was reportedly 9-10%.

Table 13
Willingness to Pay Extra for NH-Grown/Made Agricultural Products

	NH Out-of-State Visitors	Visitors
(n=415) (n=394)		
% indicating "Yes"	64.6%	46.4%
% "Premium" Willing to Pay (n=248) (n=163)		
5% or less	38.3%	33.7%
6-10%	46.8	43.6
11-15%	7.2	12.9
16-20%	7.2	8.6
More than20%	.5	1.2
	100.0%	100.0%
Average "Premium"	10.0%	8.9%

Reason(s) Willing to Pay Extra

Those indicating a willingness to pay extra for NH-Grown/Made agricultural products were asked for about their reasons which are summarized in Table 14. As can be seen, the primary reasons cited by both visitor groups were "fresher" and "better value". "Supporting the local economy" was reportedly much more important to NH visitors than those from out-of-state.

Table 13
Reasons Willing to Pay Extra for NH-Grown/Made Agricultural Products

	NH Out-of-State Visitors	Visitors
Reason(n=233) (n=163)		
Fresher	84.5%	80.2%
Support local economy	73.8	37.1
Better value	41.2	55.7
Other	5.6	9.0

Note: percentages add to more than 100% due to multiple mentions

NEW HAMPSHIRE AGRICULTURAL "EXPERIENCES"

A final section of the survey asked visitors to indicate whether they had participated in certain agricultural-related activities while in New Hampshire and their relative interest in participating in such activities in the future. Tables 14 and 15 summarize the responses which indicate that, in general, NH visitors were twice as likely to have participated in such activities than their out of state counterparts. More specifically, participation/future interest in "apple/berry picking" and "sleigh/hay rides" was noticeably higher than for "farm stays/tours" or "cider making".

Table 14
Incidence of Participating in NH Agricultural "Experiences"

	NH Out-of-State Visitors	Visitors
"Experience" (n= 418) (n=405)		
Apple/Berry picking	38.5%	19.3%
Sleigh/Hay rides	26.1	10.1
Farm Stay/Tours	17.0	8.1
Cider making	14.6	6.7

Table 15
Future Interest in NH Agricultural "Experiences"

(Scale: 1 to 5, where 5 = Very Interested)

	NH Out-of-State Visitors	Visitors
"Experience" (n= 400) (n=377)		
Sleigh/Hay rides	3.8	3.3
Apple/Barry picking	3.7	3.2
Farm Stay/Tours	3.4	3.1

Cider making 3.3 2.9

NEW HAMPSHIRE VISITOR SURVEY

AGRICULTURAL PRODUCTS/SERVICES

The New Hampshire Department of Agriculture is conducting research on the role played by agricultural products and services in the typical visitor experience while in New Hampshire. Your participation in this short survey will be greatly appreciated.

TRAVEL PARTY INFORMATION

1. Are you a...____ NH Resident ____" Visitor to New Hampshire ____Just passing through (terminate)
2. Approximately how many miles are you from your primary residence? _____
3. How many people are in your travel party on this trip? # adults _____ # children _____ Total _____
4. Visitors:

How many days will you spend in New Hampshire on this trip? _____
How many trips do you typically make to New Hampshire each year? _____

Residents:
How many trips (traveling at least 25 miles) do you typically make within New Hampshire each year for vacation/pleasure? _____

NH AGRICULTURE

5. How important are the following factors to the enjoyment of your New Hampshire visit?

Using a scale of 1 to 5, where "5" = "Very Important", please circle the number that represents the importance of each factor to you.

	Importance Scale			Not at All Very	
Open space	1	2	3	4	5
Farmers' markets, farm stands, etc.	1	2	3	4	5
Farms, orchards, etc.	1	2	3	4	5
Pick-Your-Own facilities	1	2	3	4	5
Other	1	2	3	4	5

6. During this trip in New Hampshire, did/will you purchase **New Hampshire grown/made** agricultural products (fruits/vegetables, specialty/processed foods, flowers/plants, trees/shrubs)?
____Yes ____ No ____ Not sure
If "No" or "Not Sure", please explain by checking appropriate box(es) below and then skip to #9.

____ No interest/need ____ Not aware of origin of products ____ Don't know where to purchase such products

Other:_____

7. If ("Yes") Which of the following types of **New Hampshire-grown/made** products did/will you purchase while in New Hampshire? Please check all that apply.
____ Fresh Fruits ____ Fresh Vegetables
____ Specialty/processed foods - ice cream/yogurt, jams/jellies, condiments, baked goods, etc.
____ Flowers/plants, trees/shrubs, etc.
____ Other (please specify):_____

8. Approximately how much did/will you spend on the following types of NH grown/made products on this trip?
What percentage was bought from each of the various types of establishments?

	Fresh Fruits/ Vegetables	Specialty/ Processed Foods	Flowers/plants, trees/shrubs
Expenditures - NH products	$_____	$_____	$_____
% from...			
Grocery/Convenience Stores	_____%	_____%	_____%
Farmers' Markets/Farm Stands	_____%	_____%	_____%
Pick-Your-Own facilities	_____%	_____%	_____%
Other:_____	_____%	_____%	_____%
Total	100%	100%	100%

9. Using a scale of 1 to 5, where "5" = "Very Likely", how likely would you be to increase your future purchases of **New Hampshire-grown/made** agricultural products if…

	Not at all likely				Very Likely
Products were more clearly labeled, providing easier recognition					

of "NH-Grown/Made" products	1	2	3	4	5
There was increased awareness of existence/ location of Farmers' Markets, Farm Stands, Pick-Your-Own, Nurseries, etc.	1	2	3	4	5
Products were available in more locations	1	2	3	4	5
Prices were more competitive with other products	1	2	3	4	5
Other conditions:_____	1	2	3	4	5

10. Are you willing to pay extra for **New Hampshire-grown/made** agricultural products?
___ Yes ___ No – skip to # 11

If "Yes":
a. Why? (Please check all that apply)
___ Better value ___ Fresher ___ Support local economy ___ Other

b) Approximately how much of a "premium" (percent increase) are you willing to pay compared to non-NH products?
_____% more than non-NH products.

NH EXPERIENCES

11. In which of the following activities have you participated while in New Hampshire?
Please check all that apply. How interested might you be in participating in such activities in the future?
Use a scale of 1 to 5, where "5" = "Very Interested".

	Future Interest Scale None Very				
___ Sleigh/hay rides	1	2	3	4	5
___ Cider making	1	2	3	4	5
___ Apple/berry picking	1	2	3	4	5
___ Farm Stay/Tours	1	2	3	4	5
___ Other	1	2	3	4	5

RESPONDENT INFORMATION

12. What is the Zip Code/Postal Code for the location of your primary residence? _____

13. What is your approximate annual household income?
___ less than $20,000 ___ $35,000-$49,999 ___ $75,000-$99,999 ___ $20,000-$34,999
___ $50,000-$74,999 ___ $100,000-$149,999 ___ $150,000 or more

14. Which of the following categories represents your age?
__ 18-24 __ 25-34 __ 35-49 __ 50-64 __ 65 or more

15. Are you __ male __ female

THANK YOU VERY MUCH FOR YOUR TIME AND INPUT!

Interviewer:_____ Date:_____ Location:_____
ECONOMIC IMPACT OF AGRICULTURAL TOURISM

Buying Products Directly From Farmers and Valuing Agriculture: Behavior and Attitudes of New Hampshire Food Shoppers

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Buying Products Directly From Farmers and Valuing Agriculture: Behavior and Attitudes of New Hampshire Food Shoppers Summary

What percentage of New Hampshire food shoppers buy products direct from New Hampshire farmers? Who are these shoppers and why do they buy from local farms? How might farmers increase both the number of shoppers and their purchases? What do New Hampshire food shoppers think about farmland protection?

Many farms in New Hampshire are reconsidering their business strategies due to adverse effects from local development, foreign agricultural imports, food industry consolidations and other factors beyond a farmer's ability to influence or control. For some New Hampshire farms, this means taking a new look at opportunities for marketing their products direct to New Hampshire households. This, in turn, has created a need for information that helps farmers better target and communicate with potential customers and provide those customers with the products and services they want.

To address this need, the New Hampshire Food Shoppers Study was undertaken to:

1. support farmer efforts to increase the profitability of their businesses through direct marketing to New Hampshire food shoppers.

2. understand the attitudes of New Hampshire food shoppers towards local farm products, farm-to-consumer direct markets, farm viability and farmland protection. Data was collected from a telephone survey of New Hampshire food shoppers conducted in September 2002 and analyzed to:

3. determine the behavior and attitudes of food shoppers who buy products directly from farmers at farm stands, U-Pick farms, farmers' markets, and community supported agriculture (CSA) farms during the summer months.

4. assess food-shoppers' attitudes toward farms and loss of farmland.

5. develop marketing recommendations for consideration by farmers to increase their direct sales to consumers.
6. Further studies will closely examine the profile of food shoppers and users of each market. These results will be forthcoming in a follow-up report.

Characteristics of the Survey Sample
The study collected information from 435 New Hampshire food shoppers. Seventy-five percent were female, typically a household's principal food shopper. The county of residence of those surveyed was similar to the geographic distribution of population in the state.

Behavior and Attitudes Toward Buying Directly from Farmers

1. Sixty percent of the respondents purchased products from a farm stand during the summer. Twenty-seven percent said they bought from a U-pick farm and 20 percent from a farmers' market.

2. "Freshness of products" was by far the first and most important reason for buying products in all three markets.

3. Besides freshness, customers of farm stands and farmers' markets cited "convenience" and "help local farmer" as important to their buying decision. "Atmosphere" was important to those buying at U-pick farms.

4. Farm stand and farmers' market shoppers tend to buy from farmers close to home. Seventy-three percent of farm stand customers and 67 percent of farmers' market customers traveled five miles or fewer to the place shopped most frequently.

5. Shoppers travel farther, though less frequently, to U-pick farms. Only forty percent traveled up to five miles to buy from a U-pick farm.

6. Sweet corn and tomatoes were the most frequently mentioned products purchased at farm stands and farmers' markets, followed by a general category of "other vegetables."

7. Strawberries and blueberries were the two principal products bought at U-pick farms in the summer. Because the survey was conducted in September and asked about shopping behavior during the three previous months (June –August) fall apple, pumpkin and other product sales were not mentioned.

8. Over two-thirds of customers were satisfied with the facilities and services offered at each market. Fourteen percent of farm stand customers would like to see additional or related products offered for sale, and 11 percent of U-pick customers requested restroom facilities.

9. "Out of the way or inconvenient" and "don't know any" were cited as the most important reasons why shoppers did not buy directly from farmers.

10. New Hampshire food shoppers are mixed on the importance of place of origin to their purchase decisions. Fifty-four percent said that place of origin did not affect their decision to buy fresh produce and processed food; forty-three percent said it did.

11. At the same time, food shoppers are receptive to purchasing products from New Hampshire over those from other places. Thirty-nine percent of those surveyed said they would definitely buy a New Hampshire product if it was identified by labeling and another 56 percent said they probably would do so.

12. Sixty-two percent of respondents said that they would be willing to pay more for produce and food products labeled from New Hampshire.

13. Shoppers are not in agreement about what "locally grown" means. Thirty-five percent said the term meant grown in New Hampshire. Another 29 percent thought it referred to products from their region of the state, and another 12 percent said it meant items grown within five miles of their home. On the other hand only 19 percent described locally grown as from New England or from the Northeast (four percent).

14. Ninety-four percent of respondents agreed somewhat or strongly that "consumers should have more locally-grown fruits and vegetables available to them."

15. Seventy-eight percent agreed somewhat or strongly that "consumers can influence what fruits and vegetables are grown locally."

16. Ninety percent of respondents agreed somewhat or strongly cafeterias in schools, hospitals and public institutions should serve food grown by local farmers.

Attitudes Toward Farms and Loss of Farmland

1. Ninety-one percent of those surveyed disagreed strongly or somewhat with the statement that "keeping farms viable on New Hampshire is not important."

2. The connection between buying local and strong farms was clearly recognized by respondents. Ninety-eight percent agreed with the statement that "buying local produce is an effective way to keep New Hampshire farms viable."

3. Respondents acknowledge that laws have an important role to play in protecting farmland from development. Ninety percent agreed strongly or somewhat with the statement that "laws should try to protect farmland from urban development."

4. Eighty-two percent agreed with the idea that a portion of their property tax be used to preserve open space in their town.

Marketing Implications from Survey Responses

A preliminary assessment of survey responses offers the following implications for farmers with respect to key elements of their business marketing strategies: product, price, promotion and place.

Product Strategies

1. "Farm fresh" has real meaning and value for New Hampshire food shoppers. Freshness was the overriding reason for buying fruits and vegetables at farm stands, farmers' markets and U-Pick farms. Freshness sets farm businesses apart from supermarket produce sections. Farmers selling through retail outlets need to ensure
2. and promote product freshness.

3. Sweet corn and tomatoes stand out as the most desired products sought by farm stand and farmers' market shoppers. They draw people to the market and lead to the purchase of other vegetables, fruits, baked goods and other products. Communication with exiting customers would aid in determining the desirability of changes to the product mix.

4. The principal draw for summer U-Pick customers was farm fresh strawberries (63%) and blueberries (51%) followed by apples (21%) and raspberries (15%). Complementary products should be explored to supplement U-pick sales.

Pricing Strategies

1. Although price was not noted as an important reason for shopping at farm stands and farmers' markets, 16 percent of U-Pick farm customers identified value for the money as a reason for shopping.

2. High prices did not discourage respondents from shopping at any of the three markets.

3. More than 60 percent of those surveyed said that they would be willing to pay more for New Hampshire grown products.

Promotion Strategies

1. Convenience and the sense of helping local farmers are important considerations when creating promotional programs for farmers' markets and farm stands.

2. Atmosphere and fun activities, but not necessarily special events or promotions, are key elements of promotional strategies for U-Pick farms.

3. Local advertising is a key marketing resource. Farmers markets and farm stands draw over two-thirds of their customers from within five miles of their location. At 10 miles out, percentages of customers are approximately 90 percent for these two markets.

4. Advertising for U-Pick farms needs wider distribution than the other two markets. Less than 40 percent of U-Pick customers come from within five miles of the farm's location, with 76 percent traveling 10 miles or fewer.

5. It was not uncommon for customers of farm stands and farmers' markets to visit several stands and markets during the summer months. Farmers may want to explore joint promotion and advertising.

6. New Hampshire grown products should be labeled or otherwise identified to consumers. Close to 40 percent of respondents indicated that they would definitely buy state-grown products and 56 percent said that they would probably buy them.

7. Farmers should find a way to communicate to the public how their farms help preserve open space in New Hampshire. The majority of respondents indicated that protecting open space including farmland is important to them. Almost 60 percent strongly believed that laws should try to protect farmland, and 45 percent strongly

8. supported the idea that a portion of their property tax be used to preserve open space in their town.

9. Farmers should work to maintain and nurture food shoppers' favorable attitudes toward farming. More than 60 percent of respondents believed that it is important to keep New Hampshire farms viable and 77 percent had the strong belief that buying local produce is an effective way to keep farms in the state viable.

Place Strategies

1. Market location is important. Being perceived as "inconvenient" or "out of the way" is a major barrier to a shopper's decision to buy from a farm or farmers market. This can be overcome by a mix of strategies: advertising, good directions and signage, consistent hours of operation, making the trip worthwhile to the customer, etc.

2. Likewise, farmers need to develop strategies to overcome the very significant "don't know any farm stands, farmers' markets or U-pick" barrier.

3. While not shopped as frequently as farm stands, shoppers appear willing to travel a little further to a U-Pick farm. For these businesses, the farm's atmosphere, including activities, is almost as important as product freshness to maintaining and enhancing sales. The goal is to ensure value for the money from the customer's perspective.

4. Since most shoppers travel a relatively short distance to farmers' markets and farm stands, locations within five miles of populated areas are most desirable. At the same time, farmers need to work much harder to make shoppers aware of their businesses.

5. Farmers are likely to receive support from food shoppers if they try selling products to local public institutions. The survey results indicate that more than half of the respondents strongly support the idea that public institutions such as schools and hospitals serve locally grown food.

New Hampshire Food Buyers Survey

Background

Between 1975 and 2000, New Hampshire's population grew from 817,200 to 1,173,700. During that period, farmland decreased by 18 percent from 506,500 acres to 415,000 acres. The decline in cropland acreage has been dramatic, decreasing by 24 percent since 1974. Development has permanently removed 31,000 acres of the state's most productive farmland from agriculture (Sundquist and Stevens, 1999). During that period, the number of fruit and vegetable farms remained largely unchanged while the average size of fruit and vegetable farms decreased. As these operations have become smaller and more diversified, many now market directly to consumers allowing these farms to retain a higher percentage of sale dollars. Development pressure on farms and farmland is expected to continue. The New Hampshire Office of State Planning (1997) has projected a 24 percent increase in the state population in the next two decades with a 40 percent increase in the population of some parts of southern New Hampshire. Urban sprawl and a lack of understanding of agriculture's role in limiting it will likely accelerate the decline of the state's agricultural production and employment opportunities. The non-monetary benefits that farming provides will fade. Cropland, fields, pastures, meadows and woodlots not only buffer residential and commercial development, they are also critical habitats for many species of wildlife. Trees and other natural vegetation along rivers and wetlands help prevent erosion and take up excess nutrients before they reach the water. With dwindling farm numbers, communities also lose ties to their cultural heritage and rural character. There is widespread interest in preserving open space in New Hampshire and various strategies have been proposed and implemented to achieve that objective. Many have stressed the importance of making sure that farms remain in business so that agricultural lands are not lost to other uses.

Study Objectives

The main purpose of this study was to obtain information that could help farmers increase the profitability of their operations and improve the likelihood that they would continue farming. The focus of the study was on direct sales as many farms in New Hampshire sell directly to consumers and a good proportion of those farms are situated close to highly populated areas.

The study has three specific objectives: (1) determine the behavior and attitudes of food shoppers who buy from farm stands, U-Pick farms, farmers' markets, and community supported agriculture (CSA) farms during the summer months; (2) assess food shoppers' attitudes toward farms and the loss of farmland; and (3) develop marketing data and recommendations for consideration by farmers marketing directly to consumers.

Procedure

Data for this study was obtained through a telephone survey of New Hampshire food shoppers. The University of New Hampshire Survey Center conducted the survey between September 8 and September 15, 2002. The survey instrument contained questions related to respondents' behavior, attitudes, and demographic characteristics. A sample of households in the state was selected through random digit dialing, a procedure that allows each household that has a telephone to have an equal chance of being selected for the sample. The household member who was the primary food shopper for the household was selected to answer the survey questions. A total of 2335 potential respondents were contacted. Of this number, 435 or 19 percent resulted in completed interviews, 15 percent refused to participate in the study, and 66 percent of the interviews could not be completed for various reasons. To avoid biasing the sample in favor of households that can be reached through more than one telephone number, each case was weighted inversely to its probability of being included in the sample. In addition, the data was weighted to correct for potential sampling biases due to size of

household (i.e., number of persons aged 18 and over living in the household) and county of residence. The weights used were based on 2000 U.S. Census data.

Survey Responses
The following pages contain tables and summaries of the survey responses for selected questions. The information is grouped into three categories: **Demographics, Behavior and Attitudes Toward Buying Directly from Farmers and Attitudes Toward Farms and Loss of Farmland**.

See Report Entitled "UNHCE Buying Products Directly from Farmers and Valuing Agriculture Study for Tables."

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Additional copies

Single copies of the full report can be obtained by contacting by mail the University of New Hampshire Cooperative Publications Center, 131 Main Street, UNH, Durham, NH 03824-3587, or by electronic mail <cepubs@UNH.edu> or by telephone (603) 862-2346.

The report can also be found on the UNH Cooperative Extension website
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